



## FOOD VALUE OF ALCOHOL.

An Argument to Show That It Has No Right to Any Such Claim.

Ever since Prof. W. O. Atwater, of Wesleyan college, announced the results of his experiments to determine the oxidizability of alcohol in the human body, nearly a year ago, there has existed in the minds of the laity a belief that this is a discovery of importance, far-reaching and revolutionary in its character. "Alcohol is a food" has been shouted from the housetops of the lay press; "Alcohol is a food" has been echoed by the brewer, the distiller and the wine maker, and "Alcohol is a food" has been repeated by the tens of thousands of bibulous humanity who are seeking for some legitimate or decent excuse to become intoxicated with a favorite form of alcoholic beverage.

To the medical profession there is nothing new in the results obtained by Prof. Atwater. That alcohol is oxidized when taken into the body in small quantities was demonstrated more than half a century ago. By reason of the perfect apparatus used by Prof. Atwater he has been able to show, however, that small quantities of alcohol are more completely oxidized than has been heretofore thought to be the case. The opinion that alcohol is a food rests solely upon the fact that it is oxidized when ingested; and, being oxidized, according to the well-known law of the conservatism of energy, must give rise to heat and muscular power. Let us see how much support we find for this opinion.

Physiologists recognize three classes or organic foods. The proteins, the carbohydrates and the hydrocarbons. To the first class belong all the albumen and albuminoid substances, to the second the starches, gums and sugars, and to the third the animal and vegetable fats and oils. The foods of the first class contain nitrogen, and from these alone the structure of the body are built up after loss in substance which they suffer in the ordinary performance of their functions. Alcohol, containing no nitrogen, is incapable of furnishing new tissue. The second class, the starches and sugars, undergo a slow and orderly process of combustion, and supply a fuel which gives rise to tissue energy—muscular, nervous, glandular and the like. When taken in excess they are converted into fat and stored up in the cellular tissue, chiefly beneath the skin, and thus furnish a reserve material for the organism, to be called upon in emergency. The fats are slowly oxidized, and act chiefly as a material for the production of heat.

Now, alcohol is regarded as a carbohydrate food, but its resemblance to the starches and sugars is by no means close. It cannot be changed into glycogen; indeed, even in small quantities, it interferes with the glycogenic function of the liver in a marked degree, and it cannot be stored up as fat when taken in excess of the oxidizing powers of the body. The oxidization of alcohol in the body, too, is so different from that of other carbohydrate foods that this difference alone is sufficient, in the writer's opinion, to bar it out of the class.

But there is another consideration which makes the "alcohol a food" argument nothing better than a reductio ad absurdum. If there were any generally accepted definition of a food there would be no difficulty. The properties of alcohol and the manner of its disposal within the body would be measured by that definition and its fate settled at once. Surely the fact alone that it is oxidized in small quantity does not entitle it to be classed as a food of any kind. Suppose that we should find that ether, chloroform, or any of the alkaloidal poisons are oxidized in the body, shall that alone be sufficient to entitle them to the name of food? Shall we say, for instance, that ether is a food when taken in gram doses and a poison when taken in two-gram doses? The absurdity of this position is apparent. If alcohol be entitled to the name of a carbohydrate food let us substitute it in the daily dietary of an adult for the normal carbohydrate food, or rather let us consider what the consequences would be if it were so substituted. Suppose that 500 grams, more or less, of carbohydrate food in the form of starches and sugars which has been found necessary for the well being of the average adult should be displaced by an equal quantity of alcohol. This quantity would approximate a quart of whisky daily, and lead to a pretty prompt extinction of the human race. If you say that no one claims that alcohol is a food in this large quantity and that it is only a food to the extent that it is oxidized and does no harm, I again answer so are ether and chloroform, and the alkaloids, and I shall persist in saying that these poisons are foods "to a certain extent," as is claimed for alcohol. Prof. Atwater, or those who have spoken for him, have declared that one

and one-half to two ounces of alcohol, taken in divided doses during the day are oxidized and "seem" to do no harm. The subjects of his experiments were adult males, some of whom were accustomed and some not accustomed to drinking some kind of alcoholic beverage. It is further stated that those experimented upon were not under observation, in an experimental way, long enough to determine what might have been the result of imbibing this amount of alcohol for a long time. The fact to which attention should be called is that no definite measures were instituted to determine whether the organism at all suffered in its functions by the taking of these small daily quantities of alcohol. It will not satisfy the earnest investigator to be told that they "seemed" to do no harm, nor need he content himself with this answer.

Dr. Herman Frey, in Sabli's clinic in Berne, Switzerland, in 1896, undertook to determine the effects of small quantities of alcohol upon muscular work. We cannot, within the limits of this article, give these experiments in detail. Suffice it to say that they were carried out with the utmost care and all apparent sources of error eliminated. Alcohol was given in the form of cherry brandy, cognac, wine, beer and diluted with water, not more than one and one-fourth to two drachms, or five to ten grams of alcohol being administered at one dose. The strength of the muscular contractions was measured by Mosso's ergograph. As a result of his experiments Dr. Frey found that alcohol in these quantities decreased both the strength of the individual contractions and the amount of work which the muscle was capable of doing before being fatigued.

Concerning the effects of alcohol upon mental processes we have only to recall the work of Kraepelin and his collaborators. These eminent and careful investigators, after many experiments, 1,350 in one group, announced without reservation that "all the intellectual functions examined suffered a marked depression after the ingestion of small, moderate and large doses of alcohol, and this depression makes its appearance immediately after the alcohol has been ingested."

Let anyone consider these facts, which have been established by the most careful possible methods and with mathematical precision, and he must deny in toto that alcohol deserves a place in the list of carbohydrate or any other class of foods.—John Maden, M. D., in N. Y. Independent.

## SCENE IN A POLICE COURT.

The Distress and Disgrace Brought to One Family by Intemperance.

At the Tombs one morning, says the New York World, John Haruy, a comparatively young man, was a prisoner. His young wife and a pretty, flax-haired girl of four years stood by his side. The little one seized the young man's hand and said, pleadingly: "Oh, papa! please, papa, come home."

"What a wretch I am to bring my wife and child to such a place as this!" said the man, in a choking voice. "Go home, Jennie, and leave me. I am only disgracing you, and you can get along without me."

"I couldn't go home if I tried," faltered the wife, "for I am a prisoner like yourself."

"Is this more of my work?" said the man, bitterly.

"I was using persuasion to get you home, and so was baby. You tried to



"OH, PAPA, COME HOME."

push us away to get back to the saloon, but I held your arms and screamed, and we were both arrested."

"Judge," said the husband, "please give me six months and discharge my wife. Drink gets the better of me at times, and I make a brute of myself."

"I want six months, too, if he gets it," spoke up the wife, "for it's more my fault than his that we stand before you to-day."

"Your fault?" gasped the husband.

"No, no, Jennie; it's mine, it's mine."

"I say it's mine," remarked the wife.

"Don't you remember, John, what you said to me yesterday morning as you started for your work? 'Jennie, be sure, now,' was what you said, 'and be at the shop at six o'clock and induce me to come home, or else it will be like other Saturday nights, and I will come home drunk and penniless.' I met a woman and we got to talking, and before I knew it it was ten minutes past six. I hurried to the shop, but I was too late." He was discharged.

## HIVES OF INDUSTRY.

Are Made Out of the Democratic Haunts of Idleness.

Effect of Republican Administration Upon American Labor—Its Organization Keeps Pace with Capital.

While the growth of corporations and trusts is being freely discussed, it is in place to point out that the American Federation of Labor has also grown at a surprising rate during the last three years. While capital has been concentrating its power, labor has been doing the same. This means that labor is amply protected and is flourishing under this republican administration. Founded in 1886, the American Federation of Labor has conducted its business publicly, with dignity and with success. To-day it employs 12 paid organizers, besides 470 volunteer organizers, who work in Canada as well as in the United States. The following tabulated statement shows the membership of the different organizations named on the 1st day of January, 1900:

AMERICAN FEDERATION OF LABOR.	
Enrollment reported January 1, 1900	1,094,000
Gained since January 1, 1899	304,000
Local charters issued in 1899	1,500
Int. and Nat'l unions now enrolled	73
With State unions, 11; city trades councils, 134	145
RECORD OF 1899.	
Membership gained	225,000
Int. and Nat'l unions added	9
Union labels authorized	29
Strikes won	425

Barbers ..... 13  
Hotel and restaurant employees..... 13  
Nearly every national or international organization of labor has been increasing its membership, and the past three years have been those of greatest success for the consolidation of labor interests.

Records and reports of the American Federation of Labor show no such progress of consolidation under our last democratic administration of President Cleveland. Quite the contrary.

According to a statement made by Samuel Gompers, president of the American Federation of Labor, at the labor convention held in Detroit December 1, 1899, labor was better employed, better paid, and far less men were out of work than during the last democratic administration of President Cleveland. In fact, the republican administration of President McKinley has opened the mills and made hives of industry out of the democratic haunts of idleness.

## OHIO NEWSPAPER MAN.

Looks for Larger Majority for McKinley Than That of Four Years Ago.

I see no possible reason to doubt the reelection of President McKinley by an overwhelming majority. Ohio certainly is thoroughly satisfied with his four years' administration of national affairs, as it was of his administration of Buckeye state affairs. From such information as comes to the Commercial Tribune, as the leading republican newspaper of Mr. McKinley's home state, there is but one conclusion to be drawn, namely, that all his supporters

## TOO MUCH FOR BRYAN.



AUNTY—Well, William? BRYAN—It can't be beat.

Strikes lost	48
Strikes compromised	39
Charters issued in 1899 (reported)	2,264
Charters issued in 1899 (not reported)	600

## BROTHERHOOD RAILWAY ORGANIZATIONS.

Brotherhood Locomotive Engineers	34,000
Brotherhood Locomotive Firemen	26,000
Brotherhood Railway Conductors	27,000
Brotherhood Railway Trainmen	25,000

Not only has this big American consolidation, or federation, of labor issued a large number of charters, but its affiliated organizations have been equally prosperous, as will be seen from the following table giving the number of charters issued by the different crafts for the year ended April 1, 1900:

Craft	No. of Charters Issued.
Miners	208
Butchers	23
Brewers	25
Cigarmakers	20
Tobacco workers	17
Tailors	37
Garment workers	22
Shoe workers	24
Leather workers	20
Granite cutters	12
Tile layers	10
Painters	60
Steamfitters	3
Blacksmiths	32
Machinists	59
Iron molders	50
Craft	No. of Charters Issued.
Iron, steel and tin workers	50
Boilermakers	40
Electrical workers	20
Sheet metal workers	31
Turners	27
Bicycle makers	10
Metal polishers	10
Stove mounters	12
Pattern makers	15
Wood workers	40
Wood carvers	15
Coopers	20
Trunk makers	3
Carriage and wagon makers	10
Broom makers	28
Musicians	12
Bottle blowers	17
Window glass flatteners	12
Textile workers	12
Printers	61
Printing pressmen	40
Telegraphers	14
Steam engineers	9
Cooling engineers	4
Stationary firemen	24
Street railway employees	25
Team drivers	78
Longshoremen	11
Commercial agents	49
Retail	18
Stage employees	18

of four years ago continue to be his supporters to-day, and that their number will be found to be considerably augmented when the election returns of next November shall have been counted. His conduct of the Spanish-American war, displaying, as it did, the loftiest patriotism, combined with the wisest statesmanship, has received the general indorsement of all of our people, irrespective of party, and this, taken in conjunction with the fulfillment of the promises of the St. Louis platform on the financial and industrial problems, confirms the belief of this section that it would be the part of wisdom to give William McKinley a second term. If the party will speak unequivocally and justly, in the interests of the masses, on the trust problem, I can see no reason whatever why the platform, if the other planks shall be constructed in harmony with those of the St. Louis platform, will not receive the support of all good republicans, hosts of democrats and not a few populists. The Commercial Tribune means to enter most heartily into the support of Ohio's gallant soldier president for reelection to the highest office in the land.—William M. Butler, Editor Cincinnati Commercial Tribune.

## Mere Talk.

Those who are old enough to remember will recall how the democracy asserted that the country was drifting into imperialism because there was talk of nominating Grant for a third term. Yet they nominated Cleveland three times, and now talk of imperialism because McKinley is to be elected a second time.

## Western Live Stock.

Nebraska live stock values compare as follows:		
	1898.	1900.
Horses	\$17,715,202	\$28,120,512
Mules	1,794,246	2,384,661
Cows	9,474,974	24,329,439
Other cattle	16,333,731	46,220,248
Sheep	339,783	1,090,807
	\$45,657,396	\$108,145,734

Marquette, on Lake Superior, is one of the most charming summer resorts reached via the Chicago, Milwaukee & St. Paul Railway.

Its healthful location, beautiful scenery, good hotels and complete immunity from hay fever, make a summer outing at Marquette, Mich., very attractive from the standpoint of health, rest and comfort. For a copy of "The Lake Superior Country," containing a description of Marquette and the copper country, address, with four (4) cents in stamps to pay postage, Geo. H. Heafford, General Passenger Agent, Chicago, Ill.

## Stumped the School Visitor.

A visitor at a Columbia, Mo., school the other day asked one of the lower grade class this question: "What is the axis of the earth?" "An imaginary line passing from one pole to the other, on which the earth revolves," proudly answered a pupil. "Yes," said the examiner, well pleased, "and could you hang a bonnet on it?" "Yes, sir," "Indeed! And what kind of a bonnet?" "An imaginary bonnet, sir." The visitor asked no more questions.—Chicago Chronicle.

**Try Yucatan Chili Tonic (Improved).** Superior to all the so-called tasteless tonics. Acceptable to the most delicate stomach.

The only people that know that love dies only with the soul are those who can't marry each other.—N. Y. Press.

## To Cure a Cold in One Day

Take Laxative Bromo Quinine Tablets. All druggists refund money if it fails to cure. 25c.

Protect us from our friends; our enemies let us drink our tea or coffee the way we like it.—Indianapolis Journal.

# One Woman's Letter

SAYS

"I doctored with two of the best doctors in the city for two years and had no relief until I used the Pinkham remedies."

"My trouble was ulceration of the uterus. I suffered terribly, could not sleep nights and thought sometimes that death would be such a relief."

"To-day I am a well woman, able to do my own work, and have not a pain."

"I used four bottles of Lydia E. Pinkham's Vegetable Compound and three packages of Sanative Wash and cannot praise the medicines enough."—MRS. ELIZA THOMAS, 634 Pine St., Easton, Pa.

Mrs. Pinkham advises suffering women without charge.

Lydia E. Pinkham Med. Co., Lynn, Mass.

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